



Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

Success Story

DR. MIGUEL VISBAL WINS AIR FORCE BASIC RESEARCH AWARD



Dr. Miguel Visbal's pioneering work in advanced aerodynamic and electromagnetic simulations will enable dramatic improvements in the accuracy and efficiency of the computational models used to simulate complex physical phenomena. Engineers will use these models to design next-generation weapons systems.



Air Force Research Laboratory
Wright-Patterson AFB OH

Accomplishment

Dr. Visbal, of the AFRL Air Vehicles Directorate, received the Air Force Basic Research Award. He earned the award for his pioneering work in advanced aerodynamic and electromagnetic simulations, which model the complicated physical processes engineers must understand before designing next-generation weapons systems.

Dr. Visbal's breakthrough enables researchers to develop simulations that were previously unachievable due to their high demands on computer resources. For example, Dr. Visbal used his new method to study aircraft maneuvering at high angles of attack. Prior to this work, such flight conditions could not be accurately modeled because of the complex interactions between the aircraft and the surrounding air. Dr. Visbal's method was adopted by academia, industry, and other government agencies.

Background

The Air Force Basic Research Award recognizes individuals making significant achievements in in-house basic research activities that support the Air Force's (AF) mission. A board consisting of prominent scientists, the AF chief scientist, and the director of the AFRL Air Force Office of Scientific Research selected Dr. Visbal based on his contributions during the last 3 years.

Additional Information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (05-VA-02)